COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Northern Virginia Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Transcontinental Gas Pipe Line Corporation
Compressor Station 185
10201 Balls Ford Road
Manassas, Prince William County, Virginia
Permit No. NVRO 71958

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Transcontinental Gas Pipe Line Corporation has applied for a Title V Operating Permit for its Compressor Station 185, Manassas, VA facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date:_____

Air Permit Manager:_____ Date:_____

FACILITY INFORMATION

Permittee

Transcontinental Gas Pipe Line Corporation
P. O. Box 1396
Houston, Texas 77251-1396

Facility

Transcontinental Gas Pipe Line Corporation
Compressor Station 185
10201 Balls Ford Road
Manassas, Prince William County, Virginia 20109

AIRS ID No. 51-065-0016

SOURCE DESCRIPTION

SIC Code: 4922 – Natural Gas Transmission

Transco is an interstate natural gas transmission company. Transco's 1,900-mile pipeline system transports natural gas from areas in the Gulf Coast region to customers in the northeast. Transco's compressor stations are used to compress and move the gas along the system. Gas compression at this facility is made possible through the operation of ten Ingersoll-Rand natural gas-fired internal combustion engines and their associated compressors.

The facility is a Title V major source of NO_x, and CO. The source is located in an ozone nonattainment area; therefore the potential to emit for VOC is greater than the major source threshold; therefore, the source is also major for VOC emissions. The facility is an existing source, and is a major source based on its potential to emit.

COMPLIANCE STATUS

The Virginia DEQ inspects the facility once per year. The last inspection was conducted on May 31, 2002. The facility was determined to be in compliance.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Emission Unit	Stack ID	Emission Unit Description	Size/Rated Capacity	Combustion Technology	Pollution Control Device	Pollutant Controlled	Applicable Permit Date
M/L 1	01	Ingersoll-Rand 412-KVS DT Series Internal Combustion Reciprocating Engine (compressors)	2000 hp	High Pressure Fuel Injection (HPFi) for NOx Reduction	Catalytic Oxidation for CO reduction	Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC) controlled by HPFi, Carbon Monoxide (CO) Controlled by Catalytic Oxidation	Consent Order September 9, 1996, and June 6, 2002 (revised compliance schedule); April 10, 2001 NSR Permit
M/L 2	02	Ingersoll-Rand 412-KVS DT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi	Catalytic Oxidation	NOx CO & VOC	"
M/L 3	03	Ingersoll-Rand 412-KVS DT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi	Catalytic Oxidation	NOx CO & VOC	"
M/L 4	04	Ingersoll-Rand 412-KVS DT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi	Catalytic Oxidation	NOx CO & VOC	"
M/L 5	05	Ingersoll-Rand 412-KVS DT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi	Catalytic Oxidation	NOx CO & VOC	"

M/L 6	06	Ingersoll-Rand 412-KVS FT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi		NOx	"
M/L 7	07	Ingersoll-Rand 412-KVS FT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi		NOx	"
M/L 8	08	Ingersoll-Rand 412-KVS FT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi		NOx	"
M/L 9	09	Ingersoll-Rand 412-KVS FT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi		NOx	"
M/L 10	10	Ingersoll-Rand 412-KVS FT Series Internal Combustion Reciprocating Engine	2000 hp	HPFi		NOx	"
A/C 1	11	Caterpillar G3306	203 hp			NO_x	April 10, 2001 NSR Permit

The Size/Rated Capacity is provided for informational purposes only. It is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2001 annual emission update inventory is attached. Emissions are summarized in the following tables.

2001 Actual Emissions

	2001 Criteria Pollutant Emission in Tons/Year				
Criteria Pollutant	VOC	CO	SO_2	PM_{10}	NO_x
Total	39.79	170.54	0.1	4.6	413.0

EMISSION UNIT APPLICABLE REQUIREMENTS

A. Limitations

Condition 1: The emission limits listed are based on the manufacturer's specifications from the New Source Review Application dated January 2000. Using EPA reference Method 7, or 7E the analysis will correct the oxygen concentration to fifteen percent, and the carbon dioxide concentration to seven percent.

Condition 5: NO_x and CO emission limits were calculated using the manufacturer supplied data, not as Condition 10 of the April 10, 2001 NSR permit indicates "based on three, one hour test runs".

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

B. Recordkeeping

Condition 1: In absence of an existing regulation, 9 VAC 5-80-110 was used to establish a condition for compliance testing to demonstrate compliance with emission limits contained in Conditions III.A.2, and III.A.5, and to ensure compliance with the optimization of the 10 internal combustion compressor engines.

Condition 2: In absence of an existing regulation, 9 VAC 5-80-110 was used to establish a condition for maintaining records of operator training, and scheduled and unscheduled maintenance on the internal combustion compressors and air compressor. The condition also ensures compliance with Condition III.A.1.

Condition 5: In absence of an existing regulation, 9 VAC 5-80-110 was used to establish a condition for periodic emissions testing on the internal combustion engines exhaust to verify compliance with the short term emission limits. NO_x, CO, VOC, and O_2 concentrations will be measured during the periodic testing by methods approved by the DEQ; these procedures will not necessarily use EPA reference methods. The purpose of the testing is to provide reasonable assurance of compliance, therefore, portable analyzers may be used. If periodic monitoring indicates an exceedance of an emission limit, the permittee is required to take corrective action on any equipment that is not operating properly. An excursion above an emission standard which is measured using a portable gas analyzer may be considered evidence of a violation, however, it does not necessarily establish or correspond to a violation of the permit.

C. Testing

Condition 4: In absence of an existing regulation, 9 VAC 5-80-110 E was used to

establish a condition for applicable test methods to demonstrate compliance with emission limits contained in Conditions III.A.2, III.A.3, and III.A.5.

D. Reporting

Condition 1: In absence of an existing regulation, 9 VAC 5-80-110 F was used to establish a condition for compliance with reporting requirements for emission excursions for all equipment on this facility.

Condition 2: In absence of an existing regulation, 9 VAC 5-80-110 was used to establish a condition for the purpose of maintaining good operating practices for the reduction of air pollutant emissions.

Streamlined Requirements

The following conditions have been streamlined from the April 10, 2001 New Source Review permit:

Condition 3: States that nitrogen oxide emissions from the air compressor shall be controlled by optimizing the ignition/combustion characteristics of the internal combustion engine. Since this optimization has been completed, there is no further need to carry over this condition.

Condition 4: States that Carbon monoxide (CO) and volatile organic compound (VOC) emissions from the Ingersoll-Rand compressor engines shall be controlled by installing a high-pressure fuel injection (HPFi^{TM}) system on the Ingersoll-Rand engines and test them to demonstrate that the reductions in CO and VOC are sufficient to achieve the emission limits. In the event HPFi^{TM} does not reduce both CO and VOC emissions sufficiently a catalytic oxidation system shall be installed on the engines. Since this optimization has been completed, there is no further need to carry over this condition.

Condition 8: States that initial compliance testing is required after the Ingersoll Rand compressor engines are modified. Since this compliance testing has been completed, there is no further need to carry over this condition.

Condition 13: States that the permittee shall furnish written notification to the Air Compliance Manager, Northern Virginia Regional Office, of the actual date on which the modification of the compressor engines commenced, the actual start-up date of the modified engines , and the anticipated date of each compliance test. Since this notification has been completed, there is no further need to carry over this condition.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also

requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board referred to is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by § 2.1-20.01:2 and § 10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

This general conditions cites the entire Article(s) that follow:
B.2. Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Permits for Stationary Sources
B.3. Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Permits for Stationary Sources

This general condition cites the sections that follow:
B. 9 VAC 5-80-80. "Application"
B.2. 9 VAC 5-80-150. "Action on Permit Applications"
B.3. 9 VAC 5-80-80. "Application"
B.4. 9 VAC 5-80-80. "Application"
B.4. 9 VAC 5-80-140. "Permit shield"
B.5. 9 VAC 5-80-80. "Application"

C. Recordkeeping and Reporting

Monitoring records shall be maintained to demonstrate compliance with the terms and conditions of this permit. Records shall be retained for at least five years from the date of the data collection, along with the support information of calibration and maintenance records and strip chart recordings for continuous monitoring instruments.
(9 VAC 5-80-110 F)

All results of monitoring in all requirements shall be reported to the DEQ no later than March 1st and September 1st of each calendar year.
(9 VAC 5-80-110 F)

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within 4 hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within 2 days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title 5 facilities. Section 9 VAC 5-20-250 is from the Title 5 regulations. Title 5 facilities are subject to both Sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180, and 9 VAC 5-80-250. The report must be made within 4 day time business hours of the malfunction.

Please note there are two proposed regulation changes that could affect this condition. The requirement listed in section 9 VAC 5-20-180 to report excesses emissions within 4 business hours may be changed to require reporting of excesses emissions within 6 hours. The requirement listed in section 9 VAC 5-40-50 C and 9 VAC 5-50-50C to submit a written report of excess emissions on a quarterly basis may be changed to allow semiannual reporting.

In order for emission units to be relieved from the requirement to make a written report in 14 days the emission units must have continuous monitors and the continuous monitors must meet the requirements of 9 VAC 5-50-410 or 5-40-41.

This general condition cites the sections that follow:

F.	9 VAC 5-40-50.	Notification, Records and Reporting
F.	9 VAC 5-50-50	Notification, Records and Reporting
F.1.	9 VAC 5-40-50	Notification, Records and Reporting
F.1.	9 VAC 5-50-50	Notification, Records and Reporting
F.2.	9 VAC 5-40-50	Notification, Records and Reporting
F.2.	9 VAC 5-50-50	Notification, Records and Reporting
F.3.	9 VAC 5-40-50	Notification, Records and Reporting
F.3.	9 VAC 5-50-41	Emissions Monitoring Procedures for Existing Sources
F.3.a.	9 VAC 5-50-41	Emissions Monitoring Procedures for Existing Sources

This general condition contains a citation from the Code of Federal Regulations as follows:

F.2.a 40 CFR 60.13 (h).	Monitoring Requirements.

U: Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see comments on general condition F.

This general condition cites the sections that follow:

U.2.d. 9 VAC 5-80-110. Permit Content
U.2.d. 9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

INAPPLICABLE REQUIREMENTS

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
IA1	Caterpillar G-3508 emergency electric generator, natural gas-fired	9 VAC 5-80-720 C.	N/A	534 hp
IA2	Caterpillar G-3508 emergency electric generator, natural gas-fired	9 VAC 5-80-720 C.	N/A	534 hp
IA5	Burnham 3L-125-G-GP natural gas fired boiler/space heater	9 VAC 5-80-720 C	N/A	5.23 MMBtu/hr.

[1]The-citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit will be in the {date} edition of the {newspaper}. Public comments will be accepted from {date} through {date}.